

# Notice of Allowability

Application No.

10/688,470

Examiner

Brandon J. Miller

Applicant(s)

GALLAGHER ET AL.

Art Unit

2617

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/5/2006.
2. ☒ The allowed claim(s) is/are 1,3-6,8,21-25 and 27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER

**DETAILED ACTION**

***Response to Amendment***

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ali Makoui on July 11, 2006.

The application has been amended as follows:

Claim 1:

1. (Currently Amended) A system, comprising: a mobile station, including: a first level 1, a first level 2, and a first level 3 protocol for a licensed wireless service having a licensed wireless channel serviced by a telecommunications network; and a second level 1, a second level 2, and a second level 3 protocol for an unlicensed wireless service activated when said mobile station is within an unlicensed wireless service area; an indoor base station operable to communicate with said mobile station through an unlicensed wireless channel; and an indoor network controller coupled to said indoor base station and adapted to exchange signals with said telecommunications network; wherein said indoor network controller is configured to convert said second level 1, said second level 2, and said second level 3 protocol into a standard base station controller interface protocol recognized by said telecommunications network; wherein said indoor base station operates transparently to said second level 3 protocol; wherein said

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mobile station and said indoor network controller are configured to establish a communication session on said unlicensed wireless channel, said indoor network controller using said standard base station controller interface protocol to communicate with said licensed network; wherein said second level 3 protocol comprises a radio resource sublayer adapted for said unlicensed wireless system, wherein an access mode switch is triggered to utilize a mobility management sublayer and a call management sublayer shared with said first level 3 protocol.

## Claim 21:

21. (Currently Amended) A method of establishing communication between a licensed wireless communication system and an unlicensed wireless communication system, the method comprising: with the licensed wireless communication system, servicing a licensed wireless channel of a mobile station, wherein the mobile station has a first level 1, a first level 2, and a first level 3 protocol for a licensed wireless service; with the mobile station, establishing a communication through an unlicensed wireless channel when the mobile station is within an unlicensed wireless service area, said communication utilizing a second level 1, a second level 2, and a second level 3 protocol for an unlicensed wireless service; at an indoor network controller, converting said second level 1, and said second level 2, and said second level 3 protocols into a standard base station controller interface protocol recognized by the licensed wireless communication system; and exchanging signals between the indoor network controller and the licensed wireless communication system, wherein the indoor network controller is coupled to an indoor base station that services the unlicensed wireless service area and communicates through the unlicensed wireless channel with the mobile station, said indoor base station operating

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transparently to said second level 3 protocol, wherein said second level 3 protocol comprises a radio resource sublayer adapted for said unlicensed wireless system; triggering an access mode switch to utilize a mobility management sublayer and a call management sublayer shared with said first level 3 protocol.

Claim 22. Claim identifier should be changed to (Previously Presented) instead of (Original).

Claim 23. Claim identifier should be changed to (Previously Presented) instead of (Original).

Claim 24. Claim identifier should be changed to (Previously Presented) instead of (Original).

Claim 25. Claim identifier should be changed to (Previously Presented) instead of (Original).

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: Claims 1, 3-6, 8, 21-25 and 27 are allowable based on applicant's supplemental amendment/response filed on 04/05/2006.

Regarding claim 1 the prior does not teach or fairly suggest a mobile station that includes a first level 1, level 2, and level 3 protocols for a licensed wireless service that has a licensed wireless channel serviced by a telecommunications network; and a second level 1, level 2 and level 3 protocols for an unlicensed wireless service that area activated when the mobile station is within an unlicensed wireless service area; and an indoor network controller that is configured to

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convert the second level 1, level 2, and level 3 protocols into a standard base station controller interface protocol recognized by the telecommunications network; and an indoor base station that operates transparently to the second level 3 protocol; and wherein the second level 3 protocol comprises a radio resource sublayer adapted for the unlicensed wireless system, wherein an access mode switch is triggered to utilize a mobility management sublayer and a call management sublayer shared with the first level 3 protocol. Claims 3-6 and 8 are allowable based on their dependence of independent claim 1.

Regarding claim 21 the prior does not teach or fairly suggest a mobile station with a first level 1, a first level 2, and a first level 3 protocol for a licensed wireless service; and the mobile station, establishing a communication utilizing a second level 1, a second level 2, and a second level 3 protocol for an unlicensed wireless service; and an indoor network controller converting the second level 1, level 2, and level 3 protocols into a standard base station controller interface protocol recognized by the telecommunications network; and an indoor base station that operates transparently to the second level 3 protocol; and wherein the second level 3 protocol comprises a radio resource sublayer adapted for the unlicensed wireless system; triggering an access mode switch to utilize a mobility management sublayer and a call management sublayer shared with the first level 3 protocol.

Claims 22-25 and 27 are allowable based on their dependence of independent claim 21.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

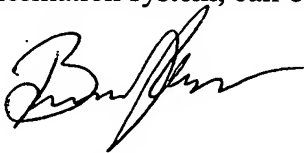
Vickberg et al U.S Patent No. 6,925,074 B1 discloses a mobile communication network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869.

The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



July 11, 2006



GEORGE ENG  
SUPERVISORY PATENT EXAMINER